

Recitation of the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) In ~~an emulator~~ hardware logic emulation system that includes at least two printed circuit boards having a plurality of interconnected emulation processor integrated circuits disposed thereon so that the hardware logic emulation system can execute an emulation program corresponding to a logic design, the printed circuit boards being interconnected by a multi-conductor cable with inputs at one end of the cable and corresponding outputs at the other cable end, a method for determining the length of the cable while the cable is installed in the emulator thereby interconnecting the printed circuit boards, comprising:

prior to installing the cable, interchanging the inputs or outputs of at least one pair of conductors of the multi-conductor cable to denote a cable length;

inputting a test pattern to the cable, said test pattern comprised of binary data;

collecting an output data pattern from the cable that results from the test pattern;

determining the cable length from the output pattern;

compiling an emulation program to account for each interchanged pair of conductors, the emulation program corresponding to a logical design for an integrated circuit.

2 (Previously presented) The method for determining the length of the cable as in claim 1 wherein said test pattern is a pattern of alternating binary "1s" and "0s."

3 (Previously presented) The method for determining the length of the cable as in claim 1 wherein one cable length is denoted by having no interchanged pair of conductors.

4 (Previously presented) The method for determining the length of the cable as in claim 2 wherein one cable length is denoted by having no interchanged pair of conductors.

5. (Currently Amended) A method for determining length of a multi-conductor cable installed in an hardware logic emulation system, the emulation system having a first printed circuit board having a plurality of interconnected emulation processor integrated circuits disposed thereon electrically communicating with a second printed circuit board having a plurality of interconnected emulation processor integrated circuits disposed thereon via the multi-conductor cable so that the hardware logic emulation system can execute an emulation program corresponding to a logic design, the multi-conductor cable having a plurality of inputs at one end and a corresponding plurality of outputs at the other end, comprising:

prior to installing the cable, interchanging the inputs or outputs of at least one pair of conductors of the multi-conductor cable to denote a cable length;

inputting a test pattern to the cable, said test pattern comprised of binary data;

collecting an output data pattern from the cable that results from the test pattern;

determining the cable length from the output pattern;

compiling the emulation program so that the interchanged pair of conductors is accounted for when the emulation program is run on the emulation system.